

Notice of Allowability

Application No.

09/838,493

Examiner

Khiem D Nguyen

Applicant(s)

DINESH CHOPRA

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/14/04.
2. ☒ The allowed claim(s) is/are 1-9, 11-14, 16-41 and 43-57.
3. ☒ The drawings filed on 19 April 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 061702
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. David R. Cochran on September 14th, 2004.

The application has been amended as follows:

In independent claim 1, line 10, after "reduce the oxides", insert --, wherein the anode is formed from titanium or titanium/platinum--.

In dependent claim 11, line 1, after "the method of claim", delete "12" and insert -47--.

In independent claim 12, line 12, after "oxides", insert --, wherein the anode is formed from titanium or titanium/platinum--.

In dependent claim 24, line 2, after "titanium or", delete "titanized platinum, platinum, or copper" and insert --titanium/platinum--.

In independent claim 25, lines 10-11, after "oxides", insert --, wherein the anode is formed from titanium, platinum, or titanium/platinum--.

In independent claim 26, lines 9-10, after "or mixtures thereof", insert --, wherein an anode used to electrochemically reduce oxides is formed from titanium/platinum--.

In independent claim 32, line 6, after "reaction cell", insert --, wherein the anode is formed from titanium or titanium/platinum--.

Art Unit: 2823

In independent claim 44, lines 9-10, after “reaction cell”, insert --, wherein the anode is formed from titanium, platinum, or titanium/platinum--.

In independent claim 45, line 9, after “reaction cell”, insert --, wherein the anode is formed from titanium or titanium/platinum--.

In independent claim 47, lines 14-15, after “ethylene diamine tetra acetate”, insert --, wherein the anode is formed from titanium, platinum, or titanium/platinum--.

Allowable Subject Matter

Claims 1-9, 11-14, 16-41, and 43-57 are allowed.

Reasons For Allowance

The following is a statement of reasons for the indication of allowable subject matter: The prior art taken alone or in combination neither discloses nor makes obvious the instant process of claims as a whole. Specifically, the prior art of record, Lopatin et al. (U.S. Patent 6,555,909) discloses a method of metallizing a substrate, comprising: depositing a dual-purpose layer (FIG. 3: 232) on the substrate wherein a first purpose is to serve as a barrier layer and a second purpose is to serve as a seed layer (col. 5, lines 42-47); and electrochemically depositing a conductive interconnect layer (FIG. 3: 236) on the surface of the dual-purpose layer using a second electrolyte (col. 5, line 62 to col. 6, line 43) but fails to teach or suggest the Applicant's steps of electrically reducing oxides on the surface of the dual-purpose layer using a first electrolyte where the first electrolyte includes a cation species of material of an anode in an electrochemical reaction cell, electrochemically depositing a conductive interconnect layer on the surface of the dual-purpose layer using a second electrolyte, wherein the conductive interconnect layer

Art Unit: 2823

includes conductive material other than the cation species in the first electrolyte used to electrochemically reduce the oxides, wherein the anode is formed from titanium or titanium/platinum as recited in the independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khiem D Nguyen whose telephone number is (571) 272-1865. The examiner can normally be reached on Monday-Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on (571) 272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2823

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K.N.

September 15, 2004



**W. DAVID COLEMAN
PRIMARY EXAMINER**